

CLAIMS

1. A basket suitable for use in a vibratory screening apparatus, for use in removing solids from a liquid and solids mixture feed, said basket mounting a stack of screen assemblies, with superposed screen assemblies separated from each other by a respective flow directing tray, and being provided with a flow distributor formed and arranged for dividing the feed into at least a first feed stream and a second feed stream and directing said feed streams onto respective ones of first and second screen assemblies, and receiving filtrate from a respective screen assembly, from said respective flow directing tray(s).
2. A basket according to claim 1, mounted in a said vibratory screening apparatus for use in removing solids from a liquid and solids mixture feed, said apparatus comprising a static outer housing, said housing comprising: a base support formed and arranged for mounting at least one said basket in floating manner so as to be vibratable, in use of the apparatus, by a vibrator device formed and arranged for vibrating said basket, said base support having a sump for receiving filtrate from said basket, and said housing having a feed device formed and arranged for directing said liquid and solids mixture feed to said basket mounted in said base support.
3. A basket as claimed in claim 1 or claim 2 wherein said flow distributor is formed and arranged so as to be switchable between a plurality of different flow directing configurations.
4. A basket as claimed in claim 3 wherein said plurality of flow directing configurations includes an intensive screening configuration in which the whole of the feed is directed onto said first screen assembly and the whole of the filtrate from said first screen assembly is directed onto said second screen assembly.

5. A basket as claimed in claim 3 or claim 4 wherein said plurality of flow directing configurations includes a restricted feed capacity configuration in which the whole of the feed is directed onto only one of said first and second screen assemblies, and the filtrate therefrom exhausted directly from the apparatus without passing through the other one said first and second screen assemblies.
6. A basket as claimed in any one of claims 1 to 5 wherein said basket has a stack of at least three screen assemblies.
7. A basket as claimed in claim 6 wherein at least one said screen assembly has a different mesh size from at least one other said screen assembly.
8. A basket as claimed in claim 6 or claim 7 wherein said first and second screen assemblies have the same mesh size.
9. A basket as claimed in any one of claims 1 to 8 wherein said flow distributor defines a plurality of flow pathways provided with flow control devices, for selective opening or, at least partial, closing of different passages.
10. A basket as claimed in claim 9 wherein at least one said flow control device is selected from flap valves, sleeve valves, plug valves, and closure plates.
11. A basket as claimed in claim 9 or claim 10 wherein at least one said flow control device is comprised by a weir, formed and arranged for sub-dividing a said feed into a said first feed stream passing over said weir and a said second feed stream not passing over said weir.
12. A basket as claimed in claim 11 wherein said weir comprises a variable height weir.

13. A basket as claimed in any one of claims 9 to 12 wherein said flow distributor includes at least one wall formed and arranged for defining a plurality of laterally adjacent flow pathways.

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14. A basket as claimed in any one of claims 1 to 13 wherein the distributor is mounted on the basket.

15. A basket as claimed in any one of claims 1 to 13 wherein
10 the distributor is coupled to the basket by flexible conduits.

16. A basket as claimed in claim 2 or any one of claims 3 to 15 when dependent on claim 2, wherein said basket forms part
15 of a multi-basket assembly comprising a plurality of said baskets, mounted in said static housing, and wherein said housing has a feed distribution device formed and arranged for directing said liquid and solids mixture feed to any one or more of said plurality of baskets.

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17. A basket as claimed in claim 2 or any one of claims 3 to 15 when dependent on claim 2, wherein said basket includes a lateral divider defining independent feed processing modules, and wherein said housing has a feed distribution device
25 formed and arranged for directing said liquid and solids mixture feed to any one or more of said basket feed processing modules.